REMARKS

Claims 1, 2, 4-8, and 10-24 are presented for further examination. Claims 1, 4, 7, 10, 14, and 21 have been amended. Claims 3 and 9 have been canceled.

In the Office Action mailed December 9, 2003, the Examiner rejected claims 1, 2, 5-8, 11-14, 17-20, and 22-24 under 35 U.S.C. § 103(a) as unpatentable over Mays et al. (of record) in view of Nysen (of record). Claims 3, 4, 9, 10, 15, 16, and 21 were rejected as obvious over Mays et al. in view of Nysen and further in view of Shober (U.S. Patent No. 5,952,922). Remarks accompanying this last rejection state that Mays et al. discloses a di-pole antenna but fails to disclose a first antenna for transmitting the radio frequency signals and a second antenna for receiving the reflected radio frequency signals which, the Examiner asserts, is disclosed in Shober, Figure 2, and at column 4, lines 66-67, and column 5, lines 1-4, with respect to antennas 204, 206. The remarks further state that it would have been obvious to a skilled artisan to use the transmitter antenna and receive antenna of Shober in the system of Mays et al. and Nysen because the separated antenna provides a higher accuracy of directionality and a higher antenna gain than the single di-pole antenna.

Applicant respectfully disagrees with the bases for the rejections and requests reconsideration and further examination of the claims.

As has been previously argued by applicant, and as the Examiner acknowledges, Mays et al. is directed to a homodyne spread spectrum frequency hopping reader system that utilizes a single di-pole antenna for both transmission and reception. Mays et al. has no need for two antennas coupled together by a divider as in the present invention because Mays et al. is not a heterodyne system.

The Examiner cites Nysen as teaching the use of a heterodyne receiver. However, the combination of Nysen and Mays et al. as suggested by the Examiner is not supported by the references. More particularly, Mays et al. teaches configuring the system for varying dwell times (see column 10, lines 55-56 and column 11, lines 12-13) and specifically using a homodyne receiver that eliminates a "false signal problem" because of the particular detection scheme used by the homodyne transceiver. Mays et al. specifically teaches the use of the homodyne transceiver to mix "the output interrogation signal with the received RF return signal

from a responding tag" so that "no false signal will be detected by the adjacent reader device." (See Mays et al., column 10, lines 32-37.) Thus, Mays et al. does not identify any need for a heterodyne transceiver, or the use of the heterodyne techniques taught by Nysen. Moreover, there is no teaching or suggestion in Nysen as to what modifications would have to be made to Mays et al. in order to convert Mays to a heterodyne reception system. Even if one were able to so modify Mays et al., the result would be inapposite to the direct teachings of Mays et al., which repeatedly teaches the use of a homodyne transceiver for its particular purpose.

Moreover, the combination of Mays et al. with Nysen and further with Shober falls short of the claimed invention because Shober does not teach the use of a first antenna for transmission and a second for reception coupled together by a divider such as is used in the heterodyne receiver of the claimed invention. This is because neither Mays et al. nor Shober teach or suggest a heterodyne receiver. Moreover, the heterodyne receiver of Nysen uses a single antenna. Nowhere in any of these references, taken alone or in any combination thereof, is there any teaching or suggestion of coupling a first antenna and a second antenna by a divider for use in a heterodyne receiver as recited in the combination of claim 1.

Turning to the claims, claim 1 is directed to a radio-frequency identification interrogator for use with a passive radio-frequency identification tag, the interrogator comprising a frequency-hopping source, a transmitter coupled to an antenna circuit, a heterodyne receiver coupled to the antenna circuit, with the antenna circuit comprising a first antenna circuit having a first antenna and a second antenna circuit having a second antenna, with the first antenna circuit coupled to the second antenna circuit by a divider circuit. This configuration is necessary for the heterodyne reception and transmission scheme used by the present invention. As discussed above, nowhere do Mays et al., Nysen, and Shober, taken alone or in any combination thereof, teach or suggest the combination recited in claim 1. Applicant respectfully submits that claim 1 and all claims depending therefrom are clearly allowable over the references cited and applied by the Examiner.

Independent claims 7, 14, and 21 all recite first and second antennas coupled by a divider, and this combination is clearly allowable over the references cited by the Examiner for

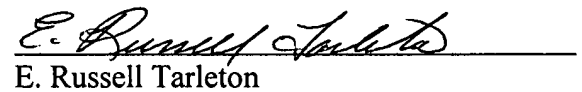
the reasons discussed above with respect to claim 1. Applicant respectfully submits that these claims as well as all claims depending therefrom are clearly allowable.

In view of the foregoing, applicant submits that all of the claims in this application are now in condition for allowance. In the event the Examiner finds minor informalities that can be resolved by telephone conference, the Examiner is urged to contact applicants' undersigned representative by telephone at (206) 622-4900 in order to expeditiously resolve prosecution of this application. Consequently, early and favorable action allowing these claims and passing this case to issuance is respectfully solicited.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



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